Maximum Permissible Exposure Evaluation

FCC ID: 2AJRQ-ME300RE

1. Client Information

Applicant	:	Maxeye Smart Technologies Co., Ltd.
Address	:	Room 6008, Chuangxingda Building, Xinan, Baoan, Shenzhen, P.R.C
Manufacturer	:	Maxeye Smart Technologies Co., Ltd.
Address	:	Room 6008, Chuangxingda Building, Xinan, Baoan, Shenzhen, P.R.C

2. General Description of EUT

EUT Name	:	ME300RE 1.0	
Models No.	:	ME300RE 1.0	
Model Difference	:	N/A	
Product Description	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz	
		Number of Channel:	802.11b/g/n(HT20):11 channels **see note(3)** 802.11n(HT40): 7 channels **see note(3)**
		RF Output Power:	802.11b: 22.19 dBm 802.11g: 21.94 dBm 802.11n (HT20): 21.86 dBm 802.11n (HT40): 21.78 dBm
		Antenna Gain:	4.6 dBi Dipole Antenna
		Modulation Type:	802.11b: DSSS(CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM
		Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps

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Power Supply	:	DC 5V supplied by AC/DC Adapter.
Power Rating	:	AC/DC Adapter: Input: AC 100~240V, 50/60Hz Output: DC 5V
Connecting I/O Port(S)	:	Please refer to the User's Manual
Note: More information about the RF function, please refer the RF test reports.		

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MPE Calculations for WIFI

1. **Antenna Gain:**
   Dipole Antenna: 4.6 dBi.

2. **EUT Operation Condition:**
   Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. **Exposure Evaluation:**
   Equation from page 18 of OET Bulletin 65, Edition 97-01
   $S=(PG)/4\pi R^2$
   Where
   S: power density
   P: power input to the antenna
   G: power gain of the antenna in the direction of interest relative to an isotropic radiator.
   R: distance to the center of radiation of the antenna

4. **Test Result:**

Worst Maximum MPE Result								
Mode	N_{TX}	Freq. (MHz)	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm^2) [S]
802.11b	1	2412	22.09	22±1	23	4.6	20	0.114
		2437	22.19	22±1	23	4.6	20	0.114
		2462	22.13	22±1	23	4.6	20	0.114
802.11g	1	2412	21.87	21±1	22	4.6	20	0.091
		2437	21.88	21±1	22	4.6	20	0.091
		2462	21.94	21±1	22	4.6	20	0.091
802.11n (HT20)	2	2412	21.71	21±1	22	4.6	20	0.091
		2437	21.77	21±1	22	4.6	20	0.091
		2462	21.86	21±1	22	4.6	20	0.091
802.11n (HT4)	2	2422	21.78	21±1	22	4.6	20	0.091
		2437	21.70	21±1	22	4.6	20	0.091
		2452	21.74	21±1	22	4.6	20	0.091

Note:
(1) N_{TX}= Number of Transmit Antennas
(2) RF Output power specifies that Maximum Conducted Peak Output Power.

5. **Conclusion:**

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm^2)
300-1,500	F/1500
1,500-100,000	1.0

For 802.11b/g/n (2412~2462 MHz)
MPE limit S: 1 mW/ cm^2
The MPE is calculated as 0.114mW / cm^2 < limit 1 mW / cm^2. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note
For a more detailed features description, please refer to the RF Test Report.

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